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Effectiveness of Accounting Information Systems in Commercial Banks in the Republic of Yemen

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1. INTRODUCTION

Nowadays, we are living in the modern information technology where we find ourselves in a small village. The augmentation of the Information and its maintenance is crucial and is not less noteworthy than physical and human resources for the conduct of business and building organizations. Therefore, the information become one of the vital substances that have been given a great attention, in the present, with extraordinary approaches. The information system, according to Bouhaik in his remarkable writing is a set of data composed and prepared in a way that made it suitable for use via its user, and it represents the outputs of the information system; the system is a group of parts and interrelated elements that interact with each other to achieve a common goal by accepting inputs and producing outputs, so the need for accounting has evolved as a system of information (Abd El-basset Bouhaik, 2015; P 3). For a more immeasurable understanding of the accounting information system that is based on three relevant words of abbreviated AIS are illustrated independently. To begin with, “accounting” which is a language of business, that records all the monetary or financial activities, to continue with, “information”, that is the treated structure of all financial activities data which is handled by decision-makers. Ultimately, the “system” is an integrated entity that concentrates on the set of purposes (Alnajjar MIM, 2016). The accounting system is one of the most important systems producing accounting information that contribute to the rationalization of economic decisions that affect the resources of communities and their wealth as well as on the well-being of its members (Kahalah, 2017), where the accounting system is linked in an important great relationship with the various administrative processes, which contributes to the rationalization of decisions and makes the administrative process more effectively to meet the management needs of the establishment, and raising the level of performance to achieve the desired goals. Accounting information is inherently characterized by certain characteristics that are governed by certain principles and rules established by the accounting practice to prove and recognize them. They provide financial information translated in the form of figures that are transformed into the form of information presented as different reports. In this way, the bank sectors or any other establishments will be able to maintain their activities by receiving the necessary support to carry out their activities and make the necessary decisions to achieve their objectives.

Hence, the availability of efficient and effective accounting information systems is important in order to rationalize administrative decisions in the bank sectors and to help management in solving the problems facing them, as well as providing useful information to decision-makers with a stake in the continuation of the establishment. The American Institute of Certified Public Accountants (AICPA) defines financial accounting as "the art of recording, classifying and summarizing in a significant manner in terms of money, transactions, and events which are, in part at least of a financial character, and interpreting the results thereof." The American Accounting Association (AAA) defines accounting as "the process of identifying, measuring and communicating economic information to permit informed judgments and decisions by users of the information". Accounting is the process of recording, classifying, summarizing, analyzing and interpretation of the financial transactions and communicating the results thereof to the persons interested in such information (Hiro, 2010).

For many years, accounting thought has witnessed increasing recognition and interest in the impact of environmental variables on the effectiveness of systems and accounting practices and their progress in various countries so it is also necessary to have a framework within the organization that governs the components of the accounting information systems with an arrangement and coordinate to fulfill their assigned role. Therefore, Most of the business environments needed the different kinds of accounting information that is used by different decision-makers in the various levels of the organization. So, all this information is required from AIS that can be dealing with all transactions in a harmonious manner to convert all data into helpful information to support the top management or managers to take the necessary decision regarding the financial or non-financial matters in the organization.

The banking environment in Yemen has been holding rapid development and change, particularly since the Reunification of Yemen in 1990. The commercial banks are considered to be the fastest-growing organizations in the field of information technology which makes those banks and their systems comprise affected by many of the factors imposed by the nature of the systems. Therefore, this study comes to shed light on measuring the current level of the accounting information systems effectiveness in those banks, and assessing its influencing factors such as top

management support, manager accounting knowledge, training and user education, user participation, and information technology on the effectiveness of accounting information systems in commercial banks in the Republic of Yemen.

2. Review of Literature and Research Gap

For this study, many publications that include books, magazines, websites, periodicals, and PhD theses that have a direct relationship to the concept of the study have been reviewed. In the literature reviewed many studies related to accounting information systems in several aspects were reviewed, which deal with the variables of the study and its different dimensions and varied in its objectives, variables, target groups, the environments, activity of the organizations that were applied in it, variety the variables that addressed, and the multiplicity of statistical methods used to obtain and analyze data in which it was conducted. Thus, the research gap of the current study is that;

- From the reviewed literature examined, it is clearly showed that there is no study in Yemen has been conducted in the area of measuring the current level of accounting information systems effectiveness in commercial banks in the Republic of Yemen, and assess the influencing factors that may be influencing the effectiveness of accounting information systems. Especially, when accounting information systems received unignorable attention and adopted to implemented all activities that occur within commercial banks in Yemen. Thus, the gap of this study supposed to bridge is measuring the current level of accounting information systems effectiveness, and assessing factors that may influence the effectiveness of accounting information systems in commercial banks in the Republic of Yemen.
- This study dealt with the Yemeni environment which represented in commercial banks, which are variations in its social, cultural, political, legal, and technological that differ from the environments of previous studies.
- Most of the previous studies exposed the accounting information systems from different views, while, the current study measures the effectiveness of accounting

information systems of commercial banks in Yemen and assessing the most important factors that influencing its effectiveness toward those systems such as top management support, managers accounting knowledge, training and user education, participation of users, and information technology.

- The lack of a Yemeni environment in the presence of a framework that includes the most important factors that may affect the effectiveness of accounting information systems in those commercial banks, where this study was characterized by dealing with this aspect.

In general, the area of accounting information systems is rapidly changed due to the technological developments which are occurring in our time, which calls for the necessity of continuing researches in order to verify and attempt for keeping pace with this expansion. A reviewed some of the obtainable literature on the topic is addressed underneath:

3. Statement of the problem

A set of pressures and challenges subjects accounting information systems in commercial banks in Yemen, some internal and others external, so the effectiveness of these systems in achieving their objectives for providing appropriate and reliable information in a timely manner for planning, monitoring, performance evaluation and rationalizing decision-making is influenced through many factors either negatively or positively. Therefore, in order to make these systems function fully, it must be taken into consideration measuring the current level of the effectiveness of those systems, and assess the factors that may be influencing those systems. Accordingly, the present study is attempting to answer the following questions:

1. What is the current level of the effectiveness of accounting information systems of commercial banks in the Republic of Yemen?
2. What is the impact of top management support factor on the effectiveness of accounting information systems of commercial banks in the Republic of Yemen?
3. What is the impact of manager accounting knowledge factor on the effectiveness of accounting information systems of commercial banks in the Republic of Yemen?
4. What is the impact of training and user education factor on the effectiveness of accounting information systems of commercial banks in the Republic of Yemen?
5. What is the impact of participation of user's factor on the effectiveness of accounting information systems of commercial banks in the Republic of Yemen?
6. What is the impact of the information technology factor on the effectiveness of accounting information systems of commercial banks in the Republic of Yemen?
7. What is the impact of all those independent factors together on the effectiveness of accounting information systems of commercial banks in the Republic of Yemen?

4. Objectives of the study

1. To highlight the concept of Accounting Information Systems.
2. To measure the current level of the effectiveness of accounting information systems in commercial banks in the Republic of Yemen.
3. To assess the factors influencing the effectiveness of accounting information systems in commercial banks in the Republic of Yemen.
4. To investigate the perceptual differences among respondents of the study sample in the different levels of gender, cadre, educational, and experience as regards to the effectiveness of accounting information systems and its influencing factors in commercial banks in the Republic of Yemen.
5. To offer suggestions to improve the effectiveness of accounting information systems in the commercial banks in the Republic of Yemen.

5. Hypotheses of the study

Measurement the current level of the effectiveness of accounting information systems in the commercial banks in the Republic of Yemen

H1: The current level of the effectiveness of accounting information systems in commercial banks in the Republic of Yemen does not describe a high level of system quality.

H2: The current level of the effectiveness of accounting information systems in commercial banks in the Republic of Yemen does not describe a high level of information quality.

H3: The current level of the effectiveness of accounting information systems in commercial banks in the Republic of Yemen does not describe a high level of service quality.

H4: The current level of the effectiveness of accounting information systems in commercial banks in the Republic of Yemen does not describe a high level of user satisfaction.

H5: The current level of the effectiveness of accounting information systems in commercial banks in the Republic of Yemen does not describe a high level of net system benefits.

The relationship among factors and the effectiveness of accounting information systems in the commercial banks in the Republic of Yemen

H6: There is no statistically significant relationship between Top Management Support and the effectiveness of accounting information systems applied in the commercial banks in the Republic of Yemen.

H7: There is no statistically significant relationship between Manager Accounting Knowledge and the effectiveness of accounting information systems applied in the commercial banks in the Republic of Yemen.

H8: There is no statistically significant relationship between Training and User Education and the effectiveness of accounting information systems applied in the commercial banks in the Republic of Yemen.

H9: There is no statistically significant relationship between Participation of Users and the effectiveness of accounting information systems applied in the commercial banks in the Republic of Yemen.

H10: There is no statistically significant relationship between Information Technology and the effectiveness of accounting information systems applied in the commercial banks in the Republic of Yemen.

H11: Top management support, Manager accounting knowledge, Training and user education, Participation of user's, and Information technology together have no statistically significant relationship with the effectiveness of accounting information systems applied in the commercial banks in the Republic of Yemen.

H12: Based on Gender, cadre, educational qualification, and experience of the respondents dose differ significantly with their perceptions toward the effectiveness of accounting information systems in the commercial banks in the Republic of Yemen.

6. Working definitions of the terms

1. Accounting

The American Accounting Association AAA (1966) has attempted to provide an extensive perspective in the following definition of accounting as "The process of identifying, measuring and communicating economic information to permit informed judgments and decisions by users of the information".

2. Information

The International Standards Organization (ISO) defines information as "the meaning that a human assigns to data by means of the human conventions used in their presentation".

3. **System**

It's a unit of overlapping subsystems which all aim to achieve a set of objectives in the organization within its different departments, for providing information to those departments (Hilali, 2004, p.15).

4. **Accounting Information System**

A system that compiles, stores data and processes it by converting data into useful and valuable information that is provided to the decision makers within the organization (Romney and Steinbart, 2015).

5. **Users**

It assigns to internal users who use the outcomes of the accounting information systems in the decision making process issues including technicians within the bank.

6. **System Quality**

A system quality is one of the most important indicators used to measure the technical matters in AIS, and it can be measured via ease of use, system speed, secures data, error recovery and correction...etc.

7. **Information Quality**

Information quality is one of the most important indicators used to measure the semantic matters issued by AIS, it can be measured with content, accuracy, format, timeliness, data security and ...etc

8. **Service Quality**

Service quality is one of the most important indicators used to measure the internal support (AIS department) and external support (external vender).

9. **Users' Satisfaction**

User satisfaction is the most common indicator employed to measure the effectiveness of accounting information systems (AISs) and the one that has been employed through many researchers. It can be measured via their feeling toward the system employed, variation between information needed and received, software satisfaction and …etc.

10. **Net Benefits**

Net system benefit is one of the most important indicators for AIS which comes as a result of all these interconnected measures employed such as

system quality, information quality, service quality, user satisfaction, thus ‘ net system benefits ’ will occur.

11. Top Management Support

This point deals with the role of top management support in the AIS success in the banks. Top management support involves direction, set goals, political support, authority, and commitment for providing the required resources for project success (Robbins and Coulter, 2007).

12. Manager Accounting Knowledge

It refers to the role of manager accounting knowledge in the AIS effectiveness in the bank. Thus, manager accounting knowledge related to accounting information system contains the knowledge of computer application programs, accounting, internet, e-mail, database, spreadsheet, and word processing.

13. Training and User Education

This point deals with the role of training and user education in the AIS effectiveness in the bank. Thus, users with adequate qualifications, skills, and experience possess the ability to deals with AIS implementation in the bank effectively.

14. Participation of User’s

It refers to the role of participation of users in the AIS success in the bank. Thus, the participation of users is one of the most important factors which help in the development of IS in its multiple stages such as planning, analysis, design, and implementation, which in turn lead to improve the outputs of the system.

15. Information Technology

This point deals with the role of information technology in the AIS effectiveness in the bank, such as the availability of developed computer programs matching with the nature and volume of activities in the bank, and

flexibility of the hardware and software used within the bank, and its ability for update when it's necessary to keep pace with emergency events occur.

7. Significance of the study

The significance of this study stems from the importance of the accounting information systems used in commercial banks. So, the researcher has conducted this study through the following convictions:

1. The importance of this study is the role played by commercial banks in supporting the Yemeni economy and pushing its progress, which requires paying more attention to the accounting information systems to increase its capacity and efficiency for providing the needed information to all who are interested.
2. The advantage of this study lies in being the first of its kind that looked at the factors influencing the effectiveness of accounting information systems and measures the current level of AIS effectiveness in commercial banks in the Republic of Yemen.
3. This study serves the commercial banks in Yemen. This will provide them with results and recommendations which can be used in the development of sound foundations that help those banks to develop their systems and achieve their objectives.
4. This study is considered as the starting point that paves the way for other studies in the Yemeni environment in support of the modernity of this topic in the accounting information systems literature.

8. Research methodology of the study

▪ Overview

The research methodology is a fundamental part of research ponder which implies a deliberate method for recognizing a research problem, setting objectives, and examining the information, and hence a blueprint of tackling the problem. The present study involves the effectiveness of accounting information systems in commercial banks in the Republic of Yemen. The study has mainly utilized a descriptive method of the survey supported by theoretical groundings to measure the current level of accounting information systems effectiveness in commercial banks in the Republic of Yemen through a comprehensive model that includes five measurements namely: system quality, information quality, service quality, user satisfaction, and net system benefit. Additionally, assessment of the factors that influencing the effectiveness of accounting information systems in commercial banks in the Republic of Yemen namely: top management support, manager accounting knowledge, training and user education, participation of users, and information technology.

This study is carried out depending on both primary data and secondary data. The sources of primary data of the study were collected from a questionnaire administrated to cover all dimensions of the study as well as a web-based link distributed to the various groups of respondents selected regarding their perceptions of the accounting information systems effectiveness in commercial banks in the Republic of Yemen. Moreover, to understand in-depth the background of the study, the exploratory survey was used to review the existing literature regarding the accounting information systems. For this reason, secondary data was gathered using reliable information from a wide range of literature reviews such as a review of specialized periodicals journals, books, doctoral dissertations, and regulations related to the subject of study. It facilitated finding the problem, giving a good reason for the need for this research, and formulating the objectives of the present study. At the same time, it is used as a tool in the administration and development of the

questionnaire of the study. Hence, table 1.1 below illustrates, in brief, the research strategy employed in this study for gathering the primary and secondary data which will be considered and analyzed, and Figure 1.1 shows the steps followed in quantitative research in the present study.

TABLE. 1.1

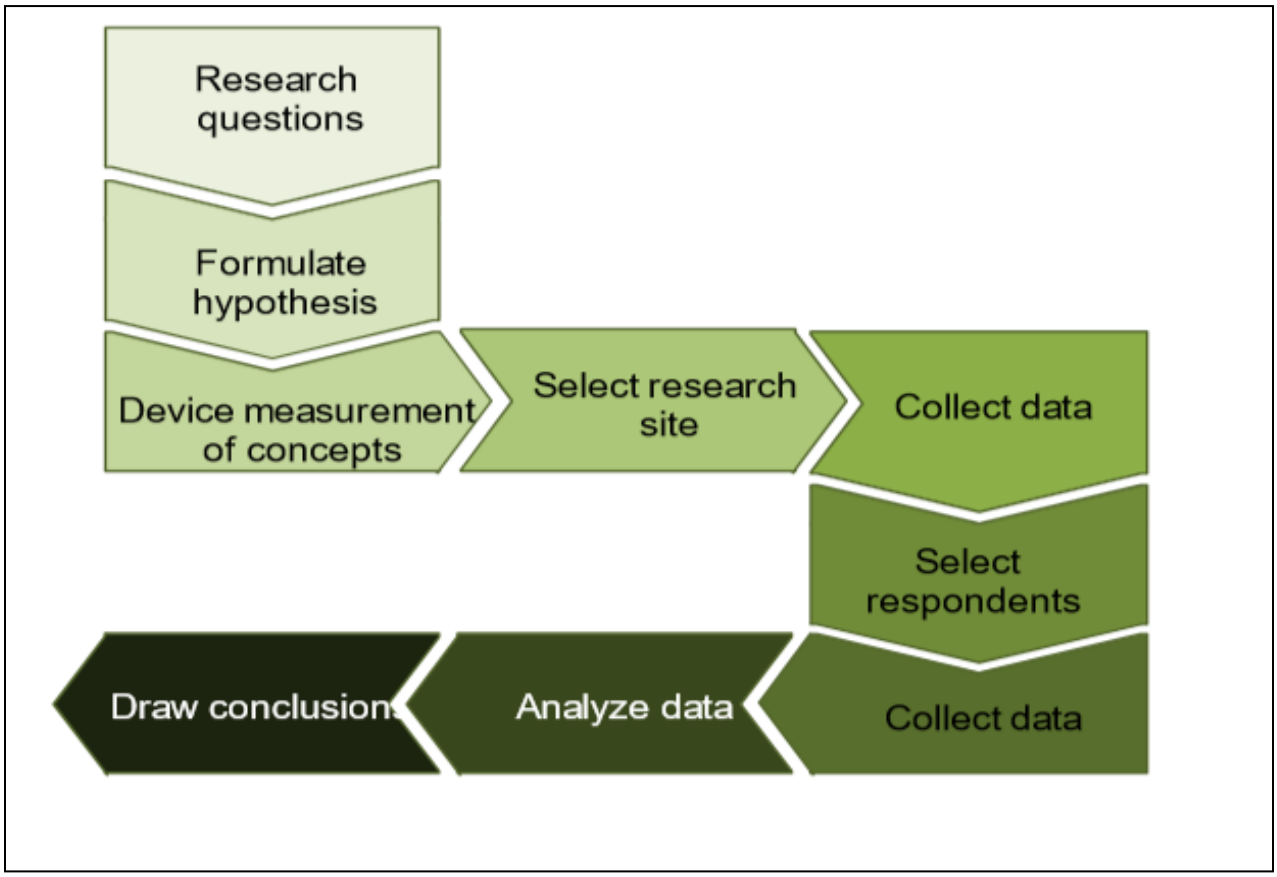
RESEARCH STRATEGY EMPLOYED

Research Methodology	Quantitative Research	Justification
Type of Research Design	Descriptive and experimental Research Design	To understand the primary and secondary data obtained.
Sampling Technique	A Stratified Random Sampling	Data collected from all main commercial banks and its branches.
Individual Respondents	Executive managers, Financial managers, Account managers, Accountants, and Auditors	Employees of the public administration for the main commercial banks in Yemen and its branches.
Data Collection Tools	Questionnaire structured, as well as web-based link and Literature review	To obtain the perceptions of target respondents for achieving study objectives.
Techniques and Tools of Data Analyses	SPSS with Appropriate Statistics	To get important conclusions that will be drawn and significant recommendations that will be made.

Source: made by researcher

FIGURE 1.1

QUANTITATIVE RESEARCH METHOD



Source: Bryman 2004

9. Research design

9.1.Population of the study

All the headquarters of the commercial banks and most of its branches are located only in the capital of Yemen, Sana'a. Besides, the headquarters possess the authority for directing, managing and monitoring all their branches, and they pay attention to keeping up with the most advanced technological developments, and all the branches of the banks do not have the power to make any decision related to the bank activities unless it is referred to the main branch of the bank. Therefore, the population of the study consists of all the main commercial banks, and its branches in the capital of Yemen Sana'a have been selected to contribute in the current study. Consequently, in order to gather the primary data for the study, a structured questionnaire was distributed to the respondents who are working in the main commercial banks in the Republic of Yemen and its branches in Sana'a to collect the needed data for the study. As for the respondents selected in some banks who couldn't obtain the needed data by structured questionnaire, the data was gathered through a web-based link which encloses the same questionnaire sent by emailed.

For that reason, to gather the primary data for the study structured questionnaire was distributed to the respondents who are working in the main commercial banks in Republic of Yemen and its branches in Sana'a to collect the needed data for the study as well as, the data gathered through a web-based link which enclose the same questionnaire which emailed to the respondents selected in some banks which couldn't obtain the needed data by structured questionnaire.

POPULATION OF THE STUDY OF COMMERCIAL BANKS IN YEMEN AND ITS BRANCHES IN SANA'A

			POPULATION OF THE STUDY						
No	Bank	No. of branches in Sana'a	Executive Manager	Financial Manager	Accounting Manager	Accountants	Auditors	No. of Target	No. of the Respondents
1	Yemen Bank of Reconstruction and Development	11	1	1	1	2	2	7	77
2	Cooperative Agricultural Credit Bank	13	1	1	1	2	2	7	91
3	International Bank of Yemen	11	1	1	1	2	2	7	77
4	Yemen Kuwait Bank	9	1	1	1	2	2	7	63
5	Yemen Commercial Bank	8	1	1	1	2	2	7	56
6	National Bank of Yemen	2	1	1	1	2	2	7	14
7	Arab Bank Limited	3	1	1	1	2	2	7	21
8	United Bank Limited	1	1	1	1	2	2	7	7
9	Al- Rafidayn Bank	1	1	1	1	2	2	7	7
10	Yemen Gulf Bank	1	1	1	1	2	2	7	7
11	Qatar National Bank	1	1	1	1	2	2	7	7
Total		61							427

9.2.Sample for the Study

To determine the sample size for this study the Slovin's formula is used to calculate it

$$n = N / (1+Ne^2)$$

whereas:

n= number of the sampling

N= total of the population

e= error margin / level of significant

$$\mathbf{n= 427 / 1+427 (0.05)^2}$$

$$\mathbf{n= 206}$$

Based on Slovin's formula the sample size is 206 but in the present study, 427 questionnaires have been sent in order to obtain the needed data and increase the rate of the responses.

Nevertheless, it is difficult to take all employees working in commercial banks in the Republic of Yemen the researcher distributed 7 questionnaires per bank, and then all questionnaires distributed were 427, the researcher distributed 266 structure questionnaires to those banks, that number is divided into two types; valid and invalid. A number of valid questionnaires were 223 and invalid questionnaires were 43 and 161 through a web-based link which encloses the same questionnaire which emailed to the respondents selected in some banks which couldn't obtain the needed data by structured questionnaires, that number is divided into two types; valid and invalid. A number of valid questionnaires were 49 and invalid questionnaires were 112. Therefore, the total valid of the questionnaires were 272 which represent 64% from the selected sample. The following table shows the administration of the questionnaire.

TABLE 1.3

ADMINISTRATION OF THE QUESTIONNAIRE

Administration of the Questionnaire	Total of the Questionnaires Sent	Response Received	Percentage
Through delivery & collection	266	223	52%
Through web-based link	161	49	12%
Total	427	272	64%

Source: Field Survey

10. Statistical Techniques and Tools

The data collected is classified, tabulated, analyzed and interpreted with the help of advanced statistical package for social science research (SPSS). The statistical tools like (i) Descriptive statistics, (ii) Frequencies and percentages, (iii) Cronbachs alpha, (iv) Pearson correlation coefficient, (v) One sample t-test (vi) Simple linear regression, (vii) Multiple linear regression (viii) ANOVA and Independent sample t-test are used to reach the results of the sample collected at various stages. Charts and tables are also used for the interpretation of data.

11. Period of the Study

The data of the present work have been collected from commercial banks in the Republic of Yemen, and the period of the study covers the period of 5 years (from Jan 2016 to May 2020).

12. Thesis Structure

I. INTRODUCTION

In this chapter, an introduction to the topic was provided explaining the related concept, terminologies to accounting information systems including research questions, objectives, hypothesis, methodology, and roadmap.

II. REVIEW OF LITERATURE

In this chapter, a systematic study of related works to accounting information systems was discussed with previous contributions and historical various findings, data, and identification of the research gap.

III. ACCOUNTING INFORMATION SYSTEMS: CONCEPTUAL ANALYSIS

In this chapter, the theoretical information provided to highlight the concept of accounting information systems through many aspects.

IV. DATA ANALYSIS AND INTERPRETATION

In this chapter, Primary data collected and secondary data obtained were analyzed with various appropriate statistical methods and tools and they were presented in various tables, figures, and diagrams.

V. FINDINGS, SUGGESTIONS AND CONCLUSION

In this chapter, a summarization of the work accomplished and findings shall be done; providing own views, suggestions, and recommendations and explaining the scope for future possible research in the field. This chapter shall also be followed by the References list, Appendices, and Endnote.

13. Major Findings of the Study

The chapter provides the findings, suggestions, and conclusion of the study, and the important features of the research. Also, the study offers scope for further research in the area which is duly presented hereunder.

The study has reached the following findings:

13.1. Respondent Profile Data

- The gender classification, found that the respondents of the present study represented by a large number of the male population of the study, that reached 76.8 percentage.
- The study found that, majority of the respondents (65%) belongs to the age group 30-39 Years. Only (1.5%) of the respondents belong to the age group of 50 Years and above.
- It is observed that, majority of the individual's respondents hold a bachelor's degree, which pointed out 89% of the total sample of the study.
- The position of the respondent's results pointed out that the majority of the respondent's cadre were accountants, which reached 39.3% of the total sample of the study, followed by auditors which reached 21% of the total sample of the study. Then financial managers, accounting managers, and executive managers respectively 16.2%, 14.3%, and 9.2% of the total sample of the study.
- The number of years of experience revealed that 63.2% of the respondents had less than 10 years of experience. Then 32.4 % of the respondents had between 11-20 years of experience. At the same time, the remaining of the respondents 4.4% had more than 20 years of experience.
- The sort of accounting information system used in banks verified, and it is found that all the commercial banks in the Republic of Yemen are computerized systems.

TABLE 1.4

Demographic Characterization of Study Respondents (n = 272)

Demographics	Characteristic	Percentage
Gender Group	Male	76.8
	Female	23.2
Age Group	20-29 Years	14.3
	30-39 Years	65.1
	40-49 Years	19.1
	50 and above	1.5
Educational Group	Diploma	3.3
	Bachelor	89.0
	Master	7.7
Position Group	Executive Managers	9.2
	Financial Managers	16.2
	Account Managers	14.3
	Accountants	39.3
	Auditors	21.0
Experience Group	Less than 10 Years	63.2
	11 – 20 Years	32.4
	Above 20 Years	4.4
AIS Sort	Manual	-
	Computerized	100

Source: Field Survey

13.2. Measuring the current level of the effectiveness of AIS in commercial banks in the Republic of Yemen

The first approach is with comprehensive findings that highlight the core findings of measuring the current level of accounting information systems effectiveness in commercial banks working in the Republic of Yemen through utilizing a comprehensive model of DeLone and McLean's (2003) that comprises five measurements namely: system quality, information quality, service quality, user satisfaction, and net system benefit.

13.2.1. System quality

- From the study, it is inferred that the level of frequencies of the present measure confirmed that accounting information systems that function in commercial banks in the Republic of Yemen, represents a tremendous level of system quality.

- According to descriptive statistics analysis that is implemented in the present measure confirmed that accounting information systems that function in commercial banks in the Republic of Yemen, describes a good level of system quality, since its values scores reached between (4.25- 3.36) and the total score of the mean value of the current measure reached of (3.99) which stated in table No.4.8. that signifies to agree.

TABLE 1.5

DESCRIPTIVE *STATISTICAL ANALYSIS* FOR THE SYSTEM QUALITY MEASURE

No	Items	*Strongly Agree*	*Agree*	*Neutral*	*Disagree*	*Strongly Disagree*	*Mean*	*Std. Deviation*	*Rank*
1	Accounting information systems is easy to use.	**100**	**150**	**12**	**10**	**-**	**4.25**	**.706**	**1**
2	Accounting information system is friendly to the users	**59**	**178**	**27**	**8**	**-**	**4.06**	**.657**	**5**
3	System provides all the information in the appropriate time.	**68**	**179**	**14**	**11**	**-**	**4.12**	**.672**	**4**

4	Your interaction with the AIS is clear and understandable.	**58**	**184**	**17**	**4**	**9**	**4.02**	**.796**	**6**
5	Operational speed of the system is satisfactory.	**26**	**132**	**46**	**51**	**17**	**3.36**	**1.085**	**9**
6	The system has ability to correct an incorrect information fast.	**47**	**158**	**54**	**12**	**1**	**3.87**	**.753**	**8**
7	The methods and policies governing correction and rerun of system outputs that are in correction are available.	**43**	**176**	**50**	**3**	**1**	**3.95**	**.621**	**7**
8	The system secures data against physical loss or damage.	**65**	**193**	**13**	**-**	**1**	**4.18**	**.537**	**2**
9	The system secures data against unauthorized alteration.	**61**	**200**	**7**	**4**	**-**	**4.17**	**.530**	**3**
	Total						**3.99**	**.706**	

Source: Field survey

- According to the testing of the hypothesis, a one-sample t-test was employed as mentioned below;

TABLE 1.6

ONE SAMPLE T-TEST RESULTS TO COMPARE THE MEAN VALUE OF THE SAMPLE RESPONSES ON THE SUBJECT OF SYSTEM QUALITY

Dimension	**95% Confidence Interval of the Difference**						
System Quality	**Mean Difference**	**Std. Deviation**	**df**	**Indexed t**	**t**	**P**	**Findings**
	35.98	4.24	271	1.96	139.88	.000	Rejected

Source: Field survey

- To prove the hypothesis, a one-sample t-test analysis was employed, the responses of the respondents on the subject of system quality revealed that the t value for the system quality measure reached (139.88) which is greater than index value (1.96) with a level of significance (.000) which is less than (0.05), which means that it is statistically significant in the mean value of (35.98). Thus, the null hypothesis is rejected, and the alternative hypothesis is accepted., which states that the current level of the effectiveness of accounting information systems in the commercial banks in the Republic of Yemen describes a good level of system quality.

13.2.2. Information quality

- From the study, it is inferred that the level of frequencies of the present measure confirmed that accounting information systems that function in commercial banks in the Republic of Yemen represents a tremendous level of information quality.
- According to descriptive statistics analysis that is implemented in the present measure confirmed that accounting information systems that function in commercial banks in the Republic of Yemen, describes a good level of information quality, since its values scores reached between (4.18, 3.85) and the total score of the mean value of the current measure reached of (4.09) which stated in table No.4.10, that indicates to agree.
- From the study, it is found that the null hypothesis for the information quality is rejected as the p-value is lesser than 0.05. And the alternative hypothesis is accepted, which states that the current level of the effectiveness of accounting information systems in the commercial banks in the Republic of Yemen describes a high level of information quality. To prove the hypothesis, a one-sample t-test was employed.

13.2.3. Service quality

- From the study, it is inferred that the level of frequencies of the present measure confirmed that accounting information systems that function in commercial banks in the Republic of Yemen represents tremendous level of service quality.

- According to descriptive statistics analysis that is implemented in the present measure confirmed that accounting information systems that function in commercial banks in the Republic of Yemen, describes a good level of service quality, since its values scores reached between (3.96, 3.49) and the total score of the mean value of the current measure reached of (3.79) which stated in table No.4.12, that symbolizes to agree.
- From the study, it is found that the null hypothesis for the service quality is rejected as the p-value is lesser than 0.05. And the alternative hypothesis is accepted, which states that the current level of the effectiveness of accounting information systems in the commercial banks in the Republic of Yemen describes a high level of service quality. To prove the hypothesis, a one-sample t-test was employed.

13.2.4. Users' Satisfaction

- From the study, it is inferred that the level of frequencies of the present measure confirmed that accounting information systems that function in commercial banks in the Republic of Yemen, represents a tremendous level of users satisfaction**.**
- According to descriptive statistics analysis that is implemented in the present measure confirmed that accounting information systems that function in commercial banks in the Republic of Yemen, describes a good level of user satisfaction, since its values scores reached between (4.03, 3.56), and the total score of the mean value of the current measure reached of (3.82) which stated in table No.4.14, that implies to agree.
- From the study, it is found that the null hypothesis for the users` satisfaction is rejected as the p-value is lesser than 0.05. And the alternative hypothesis is accepted, which states that the current level of the effectiveness of accounting information systems in the commercial banks in the Republic of Yemen characterizes a high level of users` satisfaction. To prove the hypothesis, a one-sample t-test was employed.

13.2.5. Net System Benefits

- From the study, it is inferred that the level of frequencies of the present measure confirmed that accounting information systems that function in commercial banks in the Republic of Yemen, represents a tremendous level of net benefits**.**
- According to descriptive statistics analysis that is implemented in the present measure confirmed that accounting information systems that function in commercial banks in the Republic of Yemen, describes a good level of net system benefits, since its values scores reached between (4.28, 3.88) and the total score of the mean value of the current measure reached of (4.05) which stated in table No.4.16, that purports to agree.
- From the study, it is found that the null hypothesis for the net system benefits is rejected as the p-value is lesser than 0.05. And the alternative hypothesis is accepted, which states that the current level of the effectiveness of accounting information systems in the commercial banks in the Republic of Yemen describes a high level of net system benefits. To prove the hypothesis, a one-sample t-test was employed.

13.3. Factors that influencing the effectiveness of accounting information systems commercial banks in the Republic of Yemen

The second approach is with comprehensive findings that highlight the core findings of the factors that influence the effectiveness of accounting information systems in commercial banks working in the Republic of Yemen.

13.3.1. Top management support

- From the frequencies of top management support factor, it is inferred that top management support plays an effective role on the effectiveness of accounting information systems in commercial banks in the Republic of Yemen.
- According to descriptive statistics analysis that is used for the present factor such as a mean, standard deviation, and ranking it confirmed that the role of top management support in commercial banks in the Republic of Yemen has a

positive effect on the accounting information systems effectiveness, since its values scores reached between (4.22, 3.52) and the total score of the mean value of the present factor reached of (3.86) which stated in table No.4.16, that typifies to agree.

TABLE 1.7

DESCRIPTIVE *STATISTICAL ANALYSIS* FOR THE TOP MANAGEMENT SUPPORT FACTOR

No	Items	*Strong Agree*	*Agree*	*Neutral*	*Disagree*	*Strong Disagree*	*Mean*	*Std. Deviation*	*Rank*
1	Top management provides the rules and standards that govern the accounting work performance in the bank.	**70**	**185**	**13**	**1**	**3**	**4.17**	**.626**	**2**
2	Top management preparation of policies and appropriate goals within the bank.	**64**	**181**	**23**	**1**	**3**	**4.11**	**.651**	**4**
3	Provide a high degree of delegation of powers and authorities to the administrative levels within the bank.	**43**	**137**	**18**	**11**	**3**	**3.76**	**.806**	**9**
4	Provide a written job description that defines the functions, powers, and procedures to be applied in the bank.	**73**	**167**	**26**	**3**	**3**	**4.12**	**.704**	**3**
5	Provide an application of liability accounting system at all administrative levels.	**52**	**142**	**71**	**4**	**3**	**3.87**	**.771**	**5**
6	Availability of a clear vision by the top management for the development of accounting systems when entering the bank.	**49**	**148**	**60**	**6**	**9**	**3.82**	**.869**	**6**
7	Availability continuous planning for the development of the AIS periodically with the participation of senior management officials within	**47**	**149**	**46**	**27**	**3**	**3.77**	**.888**	**8**

	the bank.								
8	Availability an encouragement and continuous motivation offer by management to staff working on systems.	**27**	**166**	**55**	**15**	**9**	**3.69**	**.851**	**11**
9	Punctuality by management toward systems operators.	**38**	**160**	**60**	**11**	**3**	**3.81**	**.765**	**7**
10	The top management assesses the project proposals related to the systems and determines their development priorities within the bank.	**28**	**136**	**78**	**27**	**3**	**3.58**	**.846**	**12**
11	Top management provides financial resources in a timely manner.	**26**	**169**	**51**	**23**	**3**	**3.71**	**.798**	**10**
12	Existence conferences and researches for discussion concerning the possibility of the development of systems regularly by top management.	**24**	**140**	**67**	**35**	**6**	**3.52**	**.905**	**13**
13	Provide an integrated network for the system within the bank and its branches.	**83**	**170**	**16**	**2**	**1**	**4.22**	**.616**	**1**
	Total						**3.86**	**.776**	

Source: Field survey

- The Result of Pearson's correlation test between top management support and AIS effectiveness shows that there is a significant correlation between the variables. Since the p-value is lesser than significant value, it is evident that there is a high positive correlation between top management support and AIS effectiveness.

TABLE 1.8

REGRESSION ANALYSIS FOR THE RELATIONSHIP BETWEEN TOP MANAGEMENT SUPPORT AND AIS EFFECTIVENESS

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	b	Std. Error	Beta		
Constant	60.707	5.029		12.072	.000
Top management support	2.262	.099	.881	22.764	.000
Adjusted R^2	0.656				
R	.881				
F	518.2				
Significant	.000				

Source: Field survey

- To prove the hypothesis, simple leaner regression used. And the result of simple regression showed a positive effect of the role of top management support on the effectiveness of accounting information systems in commercial banks in the Republic of Yemen. In contrast, the coefficient of regression (Beta = 0.811) which indicates that there is a strong effect between top management support and accounting information systems effectiveness and this result is supported by a Pearson correlation coefficient (r = 0.811) which has the same value. Moreover, the respondents agreed on the influence of top management support by the value of adjusted R^2 which reached to (0.656) which signifies that the predictor factor 'top management support' has contributed to explain about 65% of the variance or change occurs in the effectiveness of accounting information systems in commercial banks in the Republic of Yemen. Consequently, the null hypothesis H6 is rejected as the p-value is lesser than 0.05, and the alternative hypothesis is accepted.

13.3.2. Manager accounting knowledge

- From the frequencies of manger accounting knowledge factor, it is inferred that manger accounting knowledge plays an effective role on the effectiveness of accounting information systems in commercial banks in the Republic of Yemen.
- According to descriptive statistics analysis that is used for the present factor such as a mean, standard deviation, and ranking it confirmed that the role of manager accounting knowledge in commercial banks in the Republic of Yemen has a positive effect on the accounting information systems effectiveness, while its values scores reached between (4.85, 3.72) and the total score of the mean value of the present factor reached of (4.07) which stated in table No.4.16, that means to agree.
- The Result of Pearson's correlation test between manger accounting knowledge and AIS effectiveness shows that there is a significant correlation between the variables. Since the p-value is lesser than significant value, it is evident that there is a high positive correlation between manger accounting knowledge and AIS effectiveness.
- To prove the hypothesis, simple leaner regression employed. And the result of simple regression showed a positive effect of manager accounting knowledge role on the accounting information systems effectiveness in commercial banks in the Republic of Yemen, whereas the coefficient of regression (Beta = 0.664) which indicates that there is a strong effect by manager accounting knowledge on the effectiveness of accounting information systems and this result is supported by a Pearson correlation coefficient (r = 0.664) that has a same value. Moreover, the respondents agreed on the influence of manager accounting knowledge by the value of adjusted R^2 which reached to (0.439) and its signifies that the predictor factor 'manager accounting knowledge' has contributed to explain about 43% of the change or variance occurs in the effectiveness of accounting information systems in commercial banks in the Republic of Yemen. Therefore, the null hypothesis H7 is rejected as the p-value is lesser than 0.05, and the alternative hypothesis is accepted.

13.3.3. Training and user education

- From the frequencies of training and user education factor, it is inferred that training and user education plays an effective role on the effectiveness of accounting information systems in commercial banks in the Republic of Yemen.
- According to descriptive statistics analysis that is used for the present factor such as a mean, standard deviation, and ranking confirmed that the role of training and user education in commercial banks in the Republic of Yemen has an effect on the effectiveness of accounting information systems, while its values scores reached between (4.28, 3.77) and the total score of the mean value of the present factor reached of (4.04) which stated in table No.4.16, that indicates to agree.
- The Result of Pearson's correlation test between training and user education and AIS effectiveness shows that there is a significant correlation between the variables. Since the p-value is lesser than significant value, it is evident that there is a high positive correlation between training and user education and AIS effectiveness.
- To prove the hypothesis, the simple regression applied. And the results of simple regression showed a positive effect of training and user education role on the accounting information systems effectiveness in commercial banks in the Republic of Yemen. Whereas, the coefficient of regression is (Beta = 0.686) which indicates that there is a strong effect by training and user education on the effectiveness of accounting information systems and this result is supported by a Pearson correlation coefficient (r = 0.686) that has a same value of coefficient of regression. Moreover, the respondents agreed on the influence of training and user education by the value of adjusted R^2 which reached to (0.468) and its signifies that the predictor factor 'training and user education' has contributed to explain 46% of the variation or change occurs in the accounting information systems effectiveness of commercial banks in the Republic of Yemen. Consequently, the null hypothesis H8 is rejected as the p-value is lesser than 0.05, and the alternative hypothesis is accepted.

13.3.4. Participation of user

- From the frequencies of participation of user factor, it is inferred that participation of user plays an effective role on the effectiveness of accounting information systems in commercial banks in the Republic of Yemen.
- According to descriptive statistics analysis that is used for the present axis such as a mean, standard deviation, and ranking confirmed that the role of participation of users in commercial banks in the Republic of Yemen has an effect on the effectiveness of accounting information systems, while its values scores reached between (3.66, 3.12) and the total score of the mean value of the present factor reached of (3.74) which stated in table No.4.16, that intimates to agree.
- The Result of Pearson's correlation test between participation of user and AIS effectiveness shows that there is a significant correlation between the variables. Since the p-value is lesser than significant value, it is evident that there is a high positive correlation between participation of user and AIS effectiveness.
- To prove the hypothesis, a simple regression was used. And the results of simple regression showed a positive effect of participation of users on the effectiveness of accounting information systems in commercial banks in the Republic of Yemen, whereas the coefficient of regression (Beta = 0.660) which indicates that there is a strong effect by participation of users on the effectiveness of accounting information systems and this result is supported by a Pearson correlation coefficient (r = 0.660) that has a same value of coefficient of regression. Moreover, the respondents agreed on the influence of participation of users by the value of adjusted R^2 which reached to (0.434) and its signifies that the predictor factor 'participation of users has contributed to explaining 43% of the variance or change occurs in the accounting information systems effectiveness of commercial banks in the Republic of Yemen. As a result, the null hypothesis H9 is rejected as the p-value is lesser than 0.05, and the alternative hypothesis is accepted.

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13.3.5. Information technology

- From the frequencies of information technology factor, it is inferred that information technology plays an effective role on the effectiveness of accounting information systems in commercial banks in the Republic of Yemen.
- According to descriptive statistics analysis that is used for the present axis such as a mean, standard deviation, and ranking confirmed that the role of information technology in commercial banks in the Republic of Yemen has an effect on the effectiveness of accounting information systems, while its values scores reached between (4.18, 3.89) and the total score of the mean value of the present factor reached of (4.05) which stated in table No.4.16, that refers to agree.
- The Result of Pearson's correlation test between information technology and AIS effectiveness shows that there is a significant correlation between the variables. Since the p-value is lesser than significant value, it is evident that there is a high positive correlation between information technology and AIS effectiveness.
- To prove the hypothesis, a simple regression was used. And the results of simple regression showed a positive effect of the role of information technology toward the effectiveness of accounting information systems in commercial banks in the Republic of Yemen. While, the coefficient of regression is (Beta = 0.824) which indicates that there is a strong effect by information technology toward the effectiveness of accounting information systems and this result is supported by a Pearson Correlation Coefficient (r = 0.824) that has a similar value of regression coefficient. Moreover, the respondents agreed on the influence of information technology by the value of adjusted R^2 which reached to (0.678) and its signifies that the predictor factor 'information technology' has contributed to explaining 67% of the variance or change occurs in the effectiveness of accounting information systems in commercial banks in the Republic of Yemen. Consequently, the null

hypothesis H10 is rejected as the p-value is lesser than 0.05, and alternative hypothesis is accepted.

- From the analysis, it is decided that the null hypothesis concerning the whole factors together which assumed that 'Top management support, manager accounting knowledge, training and user education, participation of users, and information technology together have not a significant relationship with the effectiveness of accounting information systems in commercial banks in the Republic of Yemen' is rejected as the p-value for each factor together is lesser than 0.05. Hence, the alternative hypothesis is accepted. To prove the hypothesis, multiple linear regression is conducted.

13.4. Perceptual differences of the respondent

The ultimate approach is with core findings of the perceptual differences of the respondents of study regarding the effectiveness of accounting information systems and its influencing factors in commercial banks in the Republic of Yemen.

- Based on the results of the descriptive analysis of the gender group, there is a simple difference in means scored between males and females in all dimensions of the effectiveness of accounting information systems and its influencing factors in commercial banks in the Republic of Yemen.
- As per the results of the descriptive analysis of the cadre level, the Auditors had higher scores in all dimensions of the effectiveness of accounting information systems and its influencing factors in commercial banks in the Republic of Yemen.
- The descriptive analysis of the educational level showed that bachelor's degrees had higher scores in all dimensions of the effectiveness of accounting information systems and its influencing factors in commercial banks in the Republic of Yemen.
- Based on the results of the descriptive analysis of the experience level, it is clear that respondents with 20 Years of experience and above had a direct influence in the overall dimensions of the effectiveness of accounting

information systems and its influencing factors in commercial banks in the Republic of Yemen.

- **Results of testing hypothesis**

The hypothesis assumes that ‘Gender, cadre, educational qualification, and experience differ significantly with their perceptions toward the effectiveness of accounting information systems in the commercial banks in the Republic of Yemen’.

To prove the hypothesis, independent sample t-test used. As a result of gender group, there were no statistically significant differences between males and females, where the p-value is higher than the level of significance adopted in the current study 0.05 which is not statistically significant. Moreover, one- way ANOVA employed and it was found that there were no significant differences between the perceptions of the respondents with regard of measuring the effectiveness of accounting information systems and its influencing factors in the subject of cadre level, educational level, and experience level' in commercial banks in the Republic of Yemen, where the p-value were higher than the significance level adopted in the current study 0.05 which is not statistically significant.

SUMMARY OF FINDINGS					
No	**Hypothesis**	**Dimension**	**Objective**	**Statistical Tool**	**Result**
1	**H_1:** The current level of the effectiveness of accounting information systems in commercial banks in the Republic of Yemen does not characterize a high level of system quality.	**System Quality**	**Obj2**: To measure the current level of the effectiveness of accounting information systems in commercial banks in the Republic of Yemen.	One simple t test employed	Rejected the Null Hypothesis as the p-value is less than 0.05. And alternative hypothesis is accepted.
2	**H_2:** The current level of the effectiveness of accounting information systems in commercial banks in the Republic of Yemen does not characterize a high level of information quality.	**Information Quality**		One simple t test employed	Rejected the Null Hypothesis as the p-value is less than 0.05. And alternative hypothesis is accepted.
3	**H_3:** The current level of the effectiveness of accounting information systems in	**Service Quality**		One simple t test employed	Rejected the Null Hypothesis as the p-value is less than 0.05. And alternative

	commercial banks in the Republic of Yemen does not characterize a high level of service quality.				hypothesis is accepted.
4	**H_4:** The current level of the effectiveness of accounting information systems in commercial banks in the Republic of Yemen does not characterize a high level of user satisfaction.	**User Satisfaction**		One simple t test employed	Rejected the Null Hypothesis as the p-value is less than 0.05. And alternative Hypothesis is accepted.
5	**H_5:** The current level of the effectiveness of accounting information systems in commercial banks in the Republic of Yemen does not characterize a high level of net benefits.	**Net System Benefits**		One simple t test employed	Rejected the Null Hypothesis as the p-value is less than 0.05. And alternative Hypothesis is accepted.
6	**H_6:** There is no statistically	**Top Management**	**Obj3:** To assess the	Simple linear	Rejected the Null Hypothesis

	significant relationship between top management support and the effectiveness of accounting information systems applied in the commercial banks in the Republic of Yemen.	**Support**	factors that influencing the effectiveness of accounting information systems in commercial banks in the Republic of Yemen.	regression implemented	as the p-value is less than 0.05. And alternative Hypothesis is accepted.
7	**H_7:** There is no statistically significant relationship between manager accounting knowledge and the effectiveness of accounting information systems applied in the commercial banks in the Republic of Yemen.	**Manager Accounting Knowledge**		Simple linear regression implemented	Rejected the Null Hypothesis as the p-value is less than 0.05. And alternative hypothesis is accepted.
8	**H_8:** There is no statistically	**Training and User**		Simple linear	Rejected the Null Hypothesis

	significant relationship between training and user education and the effectiveness of accounting information systems applied in the commercial banks in the Republic of Yemen.	**Education**		regression implemented	as the p-value is less than 0.05. And alternative hypothesis is accepted.
	H_9:				
9	There is no statistically significant relationship between participation of users and the effectiveness of accounting information systems applied in the commercial banks in the Republic of Yemen.	**Participation of Users**		Simple linear regression implemented	Rejected the Null Hypothesis as the p-value is less than 0.05. And alternative hypothesis is accepted.
	H_{10}:				
10	There is no statistically	**Information**		Simple linear	Rejected the Null Hypothesis

	significant relationship between information technology and the effectiveness of accounting information systems applied in the commercial banks in the Republic of Yemen.	**Technology**		regression implemented	as the p-value is less than 0.05. And alternative hypothesis is accepted.
	H_{11}:				
11	Top management support, Manager accounting knowledge, Training and user education, Participation of user's, and Information technology together have not a statistically significant relationship with the effectiveness of accounting information systems	**All factors together**		Multiple linear regression implemented	Rejected the Null Hypothesis as the p-value is less than 0.05 for all factors. And alternative hypothesis is accepted.

	applied in the commercial banks in the Republic of Yemen.				
12	**H_{12}:** Based on gender, cadre, educational qualification, and experience of the respondents dose differ significantly with their perceptions toward the effectiveness of accounting information systems in the commercial banks in the Republic of Yemen.	**Gender group, cadre level, educational level, and experience level**	**Obj4:** To investigate the perceptual differences among respondents of the study sample in the different levels of gender, professional, educational, and experience as regards the effectiveness of accounting information systems and its influencing factors in commercial banks in the Republic of Yemen.	Independent sample t-test employed, and one way ANOVA.	The Hypothesis is rejected as the p-value is more than 0.05. And alternative hypothesis is accepted.

14. Suggestions of the study

Suggestions are one of the important milestones for the researcher, which are a set of final solutions from the researcher's view that is written down based on what the researcher reached from the results of the theoretical framework, and empirical aspect of the research. Therefore, as the results were positive, the recommendations of this study sustain the positive aspects of the study.

- The necessity for Yemeni universities to increase interest in teaching accounting information systems as well as information technology in relation to networks, databases, and programming due to its close relationship with accounting.
- The necessity of coordination between commercial banks in Yemen and academic and banking institutions to provide training and educational programs appropriate for individuals working in the department of accounting information systems, and the need to involve commercial banks with designing university programs, especially in the bachelor of accounting and information technology to ensure that their application needs are included in those programs.
- Working to develop the regulations, systems, and laws regulating the work of commercial banks in general and computerized accounting information systems in particular, in line with the development in the banking sector in the Republic of Yemen, in a way that guarantees the stability and flexibility of work, and reflects positively on the effectiveness of accounting information systems in those banks.
- The network of AIS must be properly secured with firewalls and intrusion detection systems in Yemeni commercial banks.
- Continuing to employ individuals who have specialized scientific qualifications in the field of accounting to suit the size and level of tasks

required of them, and further attention in scientific and professional training and qualification continuously for accountants and those working in accounting information systems as programmers and system analysts and computer hardware operators.

- Work in developing the organizational structures of commercial banks in the Republic of Yemen to achieve compatibility between them and the AIS used in those banks with a view of improving the quality of the information they provide.
- The necessity to involve effective leaders of users of AIS during its development, and provide material and moral incentives to them due to its importance in achieving psychological satisfaction, and informing them of their importance in the organization.
- Clarify the rules and policies of the business, as well as the standard operating procedures for preparing financial statements, clarify the arrangements for work activities that must be carried out.
- The use of modern computer equipment and advanced software must be expanded, as it has a positive impact in raising the effectiveness of accounting information systems, with the need for a periodic review for information technologies used to develop them according to running conditions to ensure accuracy and speed when using them, and keep pace with technological developments.
- To improve the quality of accounting information systems at commercial banks, it is necessary to increase the accuracy of the use of information technology to help accounting information systems carry out quality processing, storage, transfer and delivery of information, which can be done by use information technology that has the minimum specifications required to run accounting information systems applications and other applications related to accounting information systems applications.
- Stimulating the role of control by the Central Bank of Yemen (CBY) on the performance of commercial banks and their systems, through instructed

committees for verifying the performance of those banks and the extent for applying of general accepted accounting principles (GAAP).

- The necessity of having consultants and technical specialists in electronic information systems within the staff in the banks to face any defect in the accounting information system.
- Focusing on the quality of the hardware and software used and paying attention to its sources, in order to enhance the security of accounting information systems with commercial banks in Yemen and the confidence of the outputs of those systems.
- Use information technology that is supported by the availability of parts and repair/maintenance services adequately.
- Using information technology that has the ease of adapting to technological changes needed to run accounting information system applications.
- Connecting all commercial banks in Yemen and its branches with a modern information network, and each bank maintaining its privacy for enabling these banks to provide their services easily and conveniently, as well as monitor the network AIS performance periodically to ensure that the branches communicate with each other and with the main center.
- The call for attention by Yemeni universities and institutes specialized in qualifying students to study different systems of ERP as Tally and Sap and other systems needed in this field, especially those students specialized in accounting.
- The need for seminars and contributions in conferences associated with advanced technology in the banking sector in Yemen, to seek progress and making appropriate plans through top management for getting use of them, and setting training programs in the light of these developments.
- The necessity of expanding the use of the administrative decentralization system, including its specialization, delegation of powers, and determining responsibilities, in turn, contribute to ease of use AIS.
- The need to involve system users in the process of planning, design, and development of the system within the bank, which in turn reduces their

concerns about how to deal with the system or any problems that they may face.

- ❖ Increase the ability and efforts of leaders to influence and control subordinates to achieve goals, by increasing the effectiveness of two-way communication with subordinates, to get information about the problems encountered and provide appropriate feedback for solving those problems.

15. Limitations of the study

1. There are other factors that influence the effectiveness of accounting information systems, but the researcher believes that the five factors which dealt with the current study are the most needed to study in the Yemeni environment, therefore, the study focuses on these five factors. Therefore, those factors were analyzed in the present study. If more factors were taken into consideration, different results might have been obtained.

2. This study was limited to the main commercial banks in the Republic of Yemen and its branches in the capital of Yemen Sana'a where the main commercial banks are located. Other branches located in other cities were left behind due to the complex circumstances of war which is going on in Yemen.

3. This study was conducted on commercial banks only without including other banks to obtain the results that may reflect the precise content due to the homogeneity of the characteristics among sample individuals and the population regarding the effectiveness of accounting information systems and its influenced factors.

4. The lack of accurate statistical data on the nature and number of human resources operating in the accounting information systems departments in commercial banks in the Republic of Yemen.

5. The lack of cooperation of some managers working in the accounting information systems departments in commercial banks in the Republic of Yemen in answering the questionnaire questions.

6. The study variables were measured through the perspective of the users of the accounting systems, because they are the concerned persons who understand the system policy and performance.

16. Future scope of the work

1. Researchers can focus on the success of AIS with different factors that may be influencing the accounting information effectiveness in commercial banks in Republic of Yemen.
2. Future research needed with regard to the impact of E-commerce on the quality of accounting information systems in commercial banks in Republic of Yemen.
3. Further studies may be conducted on the impact of internal auditing in an accounting information systems performance and its effect on accounting information quality.
4. Evaluation of accounting information systems performance in different areas of industrial companies in Republic of Yemen.
5. Some of the researchers can shed more light on this aspect and study the influence of information technology sophisticated on accounting information systems performance and its impact on its outputs in the banking sector in Yemen.

17. Conclusion

It can be concluded from the analysis of the study on the subject of measuring the current level of the effectiveness of accounting information systems applied in commercial banks in Yemen through five dimensions namely “system quality, information quality, service quality, user satisfaction, and net system benefits” the accounting information systems that functional in those banks were running effectively. Moreover, this study has included five factors, top management support, manager accounting knowledge, training and user education, participation of users, and information technology, which have gained insufficient attention in the literature in Yemen. By systematically testing the five hypotheses against AIS effectiveness, associations between five factors and AIS effectiveness were confirmed. The verification proposes that the five factors that influenced AIS

effectiveness among commercial banks working in the Republic of Yemen were information technology, top management support, participation of users, manager accounting knowledge, and training and user education respectively. Thus, this study figures out that the different factors have a positive relationship with accounting information systems effectiveness in commercial banks in the Republic of Yemen. So, those factors are essential not only when the accounting information systems designed and developed, but except also it must be accountable at the time when the accounting information systems are performed. These findings indicate the need for further research with different factors that may influence the effectiveness of accounting information systems performance in commercial banks in the Republic of Yemen.

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